threats to, and new ideas for the conservation of, bats on Madagascar, the tropical Pacific islands and insular South-East Asia, and New Zealand. The penultimate chapter in particular, in which O'Donnell examines the ecology and conservation of New Zealand bats, presents some pleasingly positive ideas regarding the achievability of successful bat conservation on the island, some of which one hopes could be applicable to other islands. This section and the whole book is superbly concluded by a poignant chapter contributed by Jones et al., providing an overview of the importance, challenges and opportunities to island bats on a global scale.

This format of back-to-back research papers makes the book a challenging and sometimes taxing read. However, the chapters compliment and flow into one another in a logistically pleasing manner that is immensely helpful to the reader. The book contains full referencing throughout and a comprehensive array of tables and figures, including a colour photo gallery, that support the information provided in the individual chapters effectively. These factors, combined with the impressive collection of new research covering the vast breadth of this complex subject matter, make this book an encyclopaedic goldmine for researchers studying island bats, as well as an excellent starting point for novices to the subject, such as myself. I have no doubt that this book will prove an important protagonist for triggering new and exciting research into the diverse range of factors influencing the evolution, ecology and conservation of island bats.

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**Biodiversity, Ecosystem Functioning, & Human Wellbeing: An Ecological and Economic Perspective** edited by Shahid Naeem, Daniel E. Bunker, Andy Hector, Michel Loreau and Charles Perrings (2009), xiv +368 pp., Oxford University Press, Oxford, UK. ISBN 9780199547951 (hbk), GBP 75.00; ISBN 9780199547968 (pbk), GBP 37.50.

When the Millennium Ecosystem Assessment (MA) was published in 2005, it popularized the concept of ecosystem services—the benefits that people (and the ecosystems themselves) receive from the functions of ecosystems, which capture energy from the sun to yield food, water, energy, and much else besides. Biodiversity was not considered an ecosystem service but rather a fundamental contributor to all of the ecosystem services. However, the relationship among biodiversity, ecosystem function, and human wellbeing remained poorly explored, though with hints scattered throughout the assessment (full disclosure: I was a Coordinating Lead Author for the MA chapter on biodiversity in its Responses volume).

But now we have a book that brings together the latest thinking from over 60 of the leading scientists who are working to unravel the many complex relationships among these important variables. The volume does not provide the final answers, but gives some early results and lays out a detailed research programme that will undoubtedly provide new insights that will unravel the interactions between biodiversity, ecosystem functioning, ecosystem services, and human wellbeing. The editors expect that this will finally clarify the consequences of excessive rates of biodiversity loss. And, one hopes, this will lead to improved policy responses, though this step is not taken in the book.

Following a comprehensive introduction that summarizes over a decade of work on the ecological and social implications of the changes that biodiversity is undergoing, largely at the hands (and machines) of humans, several chapters lay out the natural science foundations that explain the complexity of ecosystem functioning, how various scenarios of extinction will lead to declining ecosystem services, and the contribution of work on food webs to a better understanding of biodiversity and ecosystem functioning. This section includes a nice balance among controlled laboratory experiments and observations in the wild.

The third section tackles the challenge of linking ecosystem services to human well-being, with links to climate change, ecosystems managed to provide increased amounts of products for people, crop pollination, disease, and invasive species—all highly topical issues. The section closes with three excellent chapters on economic aspects of the issues, with a detailed discussion of the economics of biodiversity and ecosystem services (by Charles Perrings and colleagues), the valuation of ecosystem services (by Edward Barbier and colleagues), and modelling biodiversity and ecosystem services in coupled ecological-economic systems (by William Brock and colleagues). This is where the book breaks new ground, and these chapters are particularly commended to ecologists seeking to understand how they can use economics to broaden the appeal of biodiversity conservation for decision-makers.

Finally, the two closing chapters synthesize the main messages by stressing the importance of collecting and sharing data on the traits of species (emphasizing TraitNet, a research coordination network) and asking whether the effects of global change on biodiversity loss and ecosystem functioning can be predicted. They provide no definitive answer to the question they pose, but they do present an improved and more comprehensive conceptual framework that goes beyond that of the MA by including consideration of market forces in the global economy and how ecosystems are linked by biogeochemical fluxes through the atmosphere and hydrosphere.

This is not a book for the general reader, being aimed at a professional audience or advanced university students. It would have been more user-friendly if it had included an abstract for each chapter, but it makes up for this shortcoming by providing a comprehensive set of references and an excellent index. It states very clearly that its main message 'is that biodiversity conservation is an essential element in any strategy for sustainable development.' The readers of this journal will surely applaud this message, while perhaps wishing that the concept of biodiversity were used more consistently throughout the book. Can biodiversity, defined as 'the number, abundance and identity of genotypes, populations, species, functional groups and traits, and landscape units present in a given ecosystem' (p. 150, the first time this critical concept was defined) ever be 'used'? Perhaps that is a question for debate in a graduate seminar.

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